



**SHARP®**

**ELECTRONIC CASH REGISTER**

MODEL

**ER-A490**

**EASY PROGRAMMING**

**INSTRUCTION MANUAL**

# CONTENTS

EASY PROGRAMMING BASICS.....2

1 Available Modes .....4

2 Available Keys .....4

PROGRAMMING.....5

1 Prior to Programming.....5

2 Basic Instruction .....6

Notes for Programming.....7

Patterns for Programming.....7

3 Flowcharts For Programming Each Item .....14

Department.....15

PLU.....19

CA2, CH through CH4, CR1 through CR6 keys.....23

DIFFER ST, NS, GC COPY, C, RF, GLU, NBAL, BT, B.S, GC RCPT, TIP PAID keys .....26

%1 through %4 keys .....27

⊖1 through ⊖4 keys .....29

EX1 through EX9 keys .....31

RA, RA2, PO, PO2, CASH TIP, NON CASH TIP keys .....33

Cashiers.....34

VAT key .....36

Time or date.....37

Worksheets for programming

● Conventions ●

• The marks such as 00, . and CL show keys on the keyboard.

We use these marks as keys. For example, “press 00” means “press the 00 key”.

• We use the key mark X as a numeric key.

For example, if we show the following sequence, you can enter numerals up to six digits using numeric keys

To keep the current setting

X X X X X X

A maximum of six digits

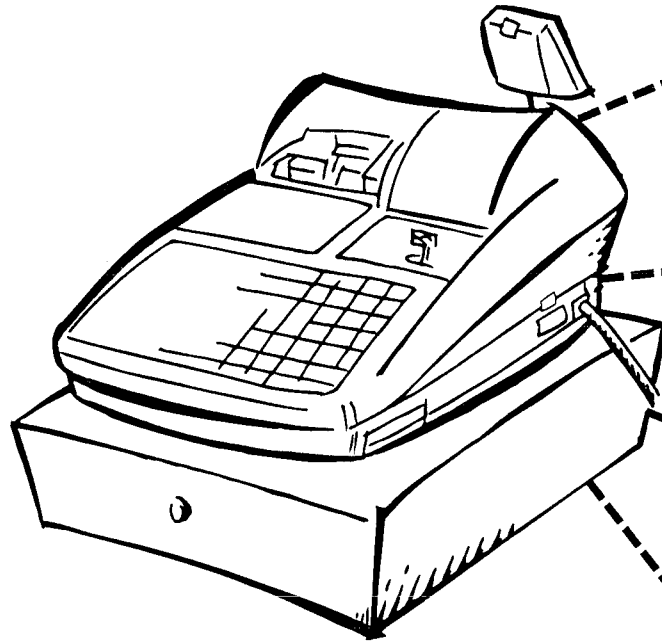
ST

• We use the key mark A as a character key.

1

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# EASY PROGRAMMING BASICS



One of the most friendly aspects of the ER-A490 terminals is the Easy Programming function. Easy Programming allows the end-user to quickly and efficiently program values and parameters for each item. Using the Easy Programming method will allow the program of several functions for each item with one simple programming sequence. Message prompting facilitates the entry of all necessary characters for each option, and reduces the number of time consuming errors made during the programming process. Easy Programming also eliminates long procedures such as entering job codes or finding function numbers and values in the instruction manual. Details of each programming item are outlined in the appropriate section under the chapter entitled "PROGRAMMING".

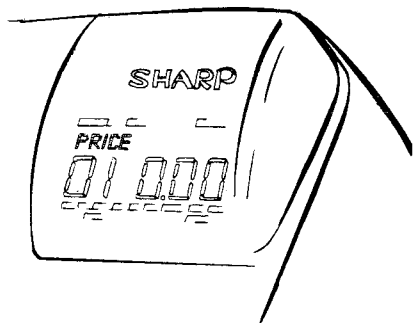
1



## Starting Programming with a Single Key-Stroke

In the Easy Programming, you can start programming with a single key-stroke. Press a key for which you want to program values or parameters. You need not enter a job number to start programming.

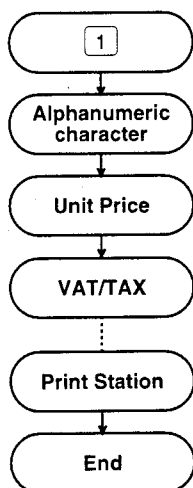
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## Messages Informing You of the Contents of the Next Operation

When the Easy Programming starts, a message will be displayed on the dot-matrix display. The message informs you of the functions that can be performed at this step. Following the message, you can program a value or a parameter for each item.

3

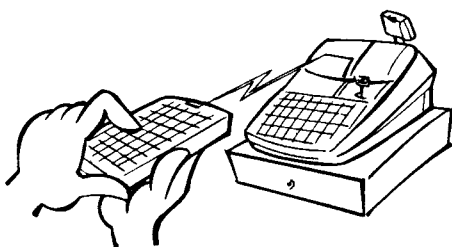


## Some Options Are Programmable in One Programming Sequence

You can program options for a key in one programming sequence. For example, alphanumeric characters, unit price, functions and so on can be programmed for a department key in one sequence. This function reduces programming time.



4

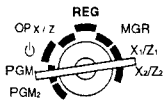
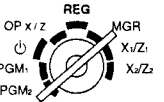


## Simple Programming with Optional Programming Remote Keyboard

The optional programming remote keyboard allows you to program various items by remote control.

## 1 Available Modes

You can do "Easy Programming" in the following modes:

<p><b>PGM1</b></p>  <p>The PGM1 mode is used for programming those items that need to be changed often: unit prices, percentages, alphanumeric characters and so on. Use the manager key (MA) or the submanager key (SM) to set the mode switch to the PGM1 position.</p>	<p><b>PGM2</b></p>  <p>The PGM2 mode is used for programming all items available for the PGM1 mode and those items that require less frequent changes: functions of each key and of each cashier code, time, date and so on. Use the manager key (MA) to set the mode switch to the PGM2 position.</p>
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## 2 Available Keys

This section describes the keys used in "Easy Programming".

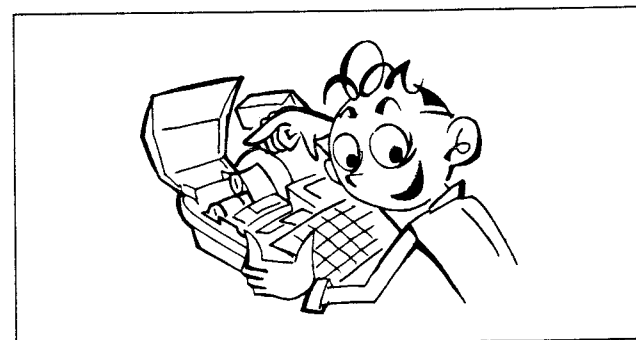
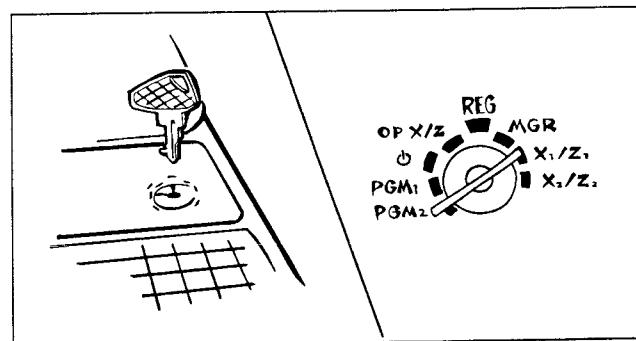
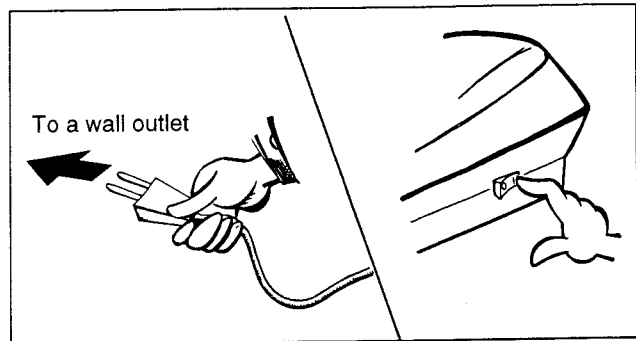
Keys:	Names:	Used to:
<b>0 - 9</b>	Numeric keys	enter numerals.
<b>00</b>	Double zero key	<ul style="list-style-type: none"> <li>go into the character entry mode.</li> <li>switch between values of a parameter. For example, when the parameter has the values "0", "1" and "2", this key shifts the value like this:  <math>\cdots \rightarrow 0 \rightarrow 1 \rightarrow 2 \rightarrow 0 \rightarrow 1 \rightarrow \cdots</math></li> <li>set a character in its new position when you enter the character with a character code.</li> </ul>
<b>CL</b>	Clear key	cancel programming. To cancel all the values or parameters you have set during the programming sequence, press this key twice in any step.
<b>.</b>	Decimal point key	<ul style="list-style-type: none"> <li>enter decimal point.</li> <li>move the cursor under a parameter to the right.</li> </ul>
<b>⊗</b>	Multiplication key	move the cursor under a parameter to the left.
<b>ST</b>	Subtotal key	complete each setting you have entered for the option.
<b>TL</b>	Cash/amount tendered key	finalize the programming.

# PROGRAMMING

## 1 Prior to Programming

Before programming, the following things must be done:

1. Plug your machine into a standard wall outlet.
2. Turn the power switch on.
3. Put the manager or submanager key in the mode switch and turn it to the PGM1 or PGM2 position depending upon the programming you are about to do.
4. Check to see whether both journal and receipt rolls are present in the machine. If they are missing, install them correctly following the procedure shown in "5. Installing and removing the paper roll" under the "OPERATOR MAINTENANCE" in the ER-A490 instruction manual.
5. Start programming referring to the instructions explained in the next section.

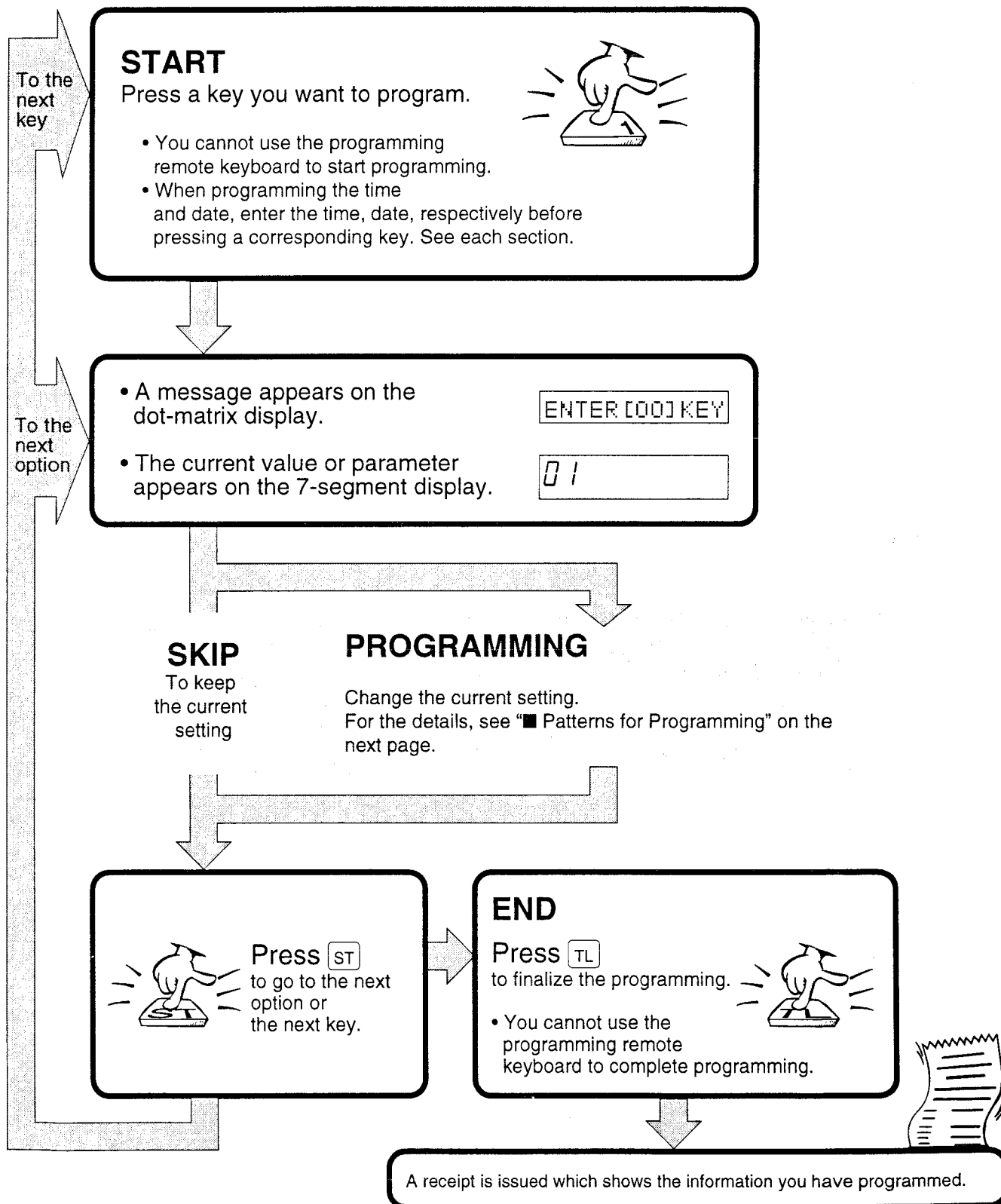


**Note :** With the Easy Programming, only those items shown in section "3. Flowcharts for Programming Each Item" are programmable. Some items other than these items are programmable with the normal programming. See the ER-A490 instruction manual.

## 2 Basic Instruction

This section shows the basic instruction of the Easy Programming. In the Easy Programming, you can program values and parameters for each item following the message displayed on the dot-matrix display. The dot-matrix display will prompt you to enter a necessary value or a parameter for each option along with the current setting. For the details of each programming item, see each corresponding section.

The following flow chart shows the basic instruction of the Easy Programming:



## ■ Notes for Programming

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- To complete each step, press the **[ST]** key.
- If you keep the current setting in each step, press the **[ST]** key without pressing any keys.
- To clear the values or characters you just entered, press the **[CL]** key.
- To quit programming, press the **[CL]** key twice in any step.
- To finalize programming, press the **[TL]** key.  
You can finalize programming even if you do not get to the last step of the programming using the **[TL]** key.

## ■ Patterns for Programming

---

There are following three patterns to change the current setting:

- **Entering alphanumeric characters** → See section **A** (page 8)

You can change the current alphanumeric characters to new characters.  
To enter alphanumeric characters, you must first go into the character entry mode by pressing the **[00]** key.  
Use character keys or character codes to enter alphanumeric characters.

- **Entering numerals for prices, percentages and so on** → See section **B** (page 10)

You can change the current numeral data for such as prices, percentages, amounts, groups and HALO (High Amount Lock Out).  
Enter desired numbers using numeric keys.

- **Changing parameters** → See section **C** (page 11)

You can change a value specified for a parameter to determine how you use the machine. For example, specifying a value for a parameter selects whether compulsory or non-compulsory item validation printing.  
Use a corresponding numeric key or the **[00]** key to change a value.

For more information about changing current settings, see a corresponding section from **A**, **B** and **C** sections shown on the following pages.

There is an example sequence in each section.

Program an item referring to the example.



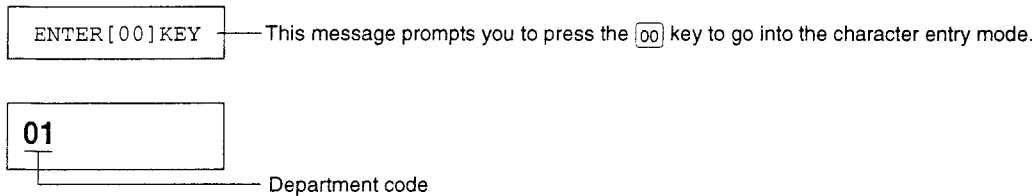
## A Entering Alphanumeric Characters

This section describes how to enter alphanumeric characters, using the following example:

**Example** Programming "SOUP" to the department 1

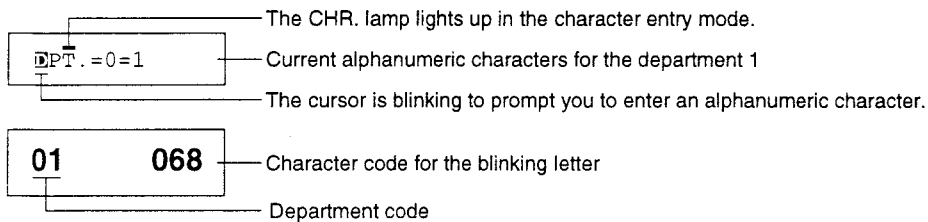
### 1. Press **1** (department 1 key).

The message and the department code appear as follows:



### 2. Press **00** to go into the character entry mode.

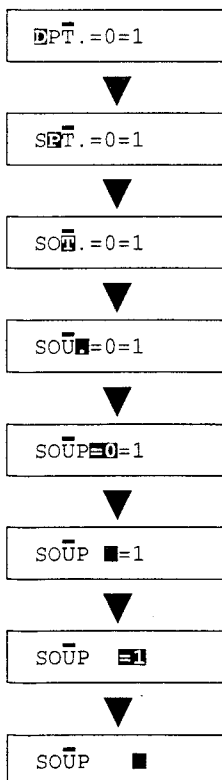
The current characters, the department code and a character code appear as follows:



In the character entry mode, you can use character keys on the programming keyboard sheet.

### 3. Enter characters "SOUP".

Dot matrix display:



Keyboard:



#### 4. Press **[ST]** to complete programming alphanumeric characters.

#### 5. Select one of the following actions:

- Continue programming of another item for the department 1 key, following the message on the display.
- Press **[TL]** to finalize the department programming.
- Press another department key to program the corresponding department.

There are following two ways to enter an alphanumeric character:

- Using a character key:

**Example**

Press **[A]** → to enter "A"

- Using a character code:

**Example**

Press **[0][6][5][00]** → to enter "A"

Character code

Note:

- You cannot use the programming remote keyboard to enter a character code.
- Refer to the alphanumeric character code table shown on the ER-A490 manual.

##### ■ To delete a character

**[DEL]**: Deletes a character at the cursor position.

**[BACK SPACE]**: Backs up the cursor, deleting the character at the left of the cursor.

##### ■ To move the cursor

**[←]** or **[→]**: Moves the cursor.

##### ■ To enter various types of characters

- Double-size characters **[DC]**

By default, a character is entered in single size. To enter a character in double size, press the **[DC]** key before entering characters to enter into the double-size character mode. To return to the single-size character mode, press the **[DC]** key again.

- Lower-case characters or characters shown at the upper right of keys **[SHIFT]**

By default, a letter of alphabets is entered in upper case. To enter a letter in lower case or characters shown at the upper right of keys, press the **[SHIFT]** key before entering characters to enter into the lower-case letter mode. To return to the upper-case letter mode, press the **[SHIFT]** key again.

- Special characters

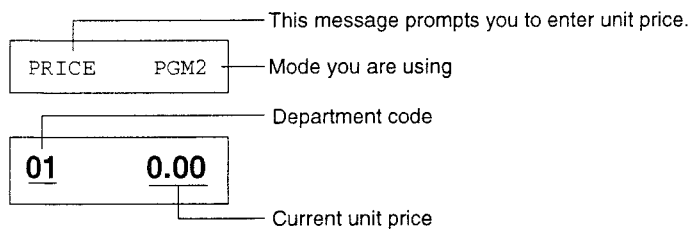
"**(^)**", "**(v)**", "**(~)**", "**(o)**", "**(..)**", "**(.)**", "**(\)**", and "**(/)**" keys are used only for combination with a character key. Press a corresponding key before entering characters. If the combination is unavailable, only a character key is entered.

## **B** Entering numerals for prices, percentages and so on

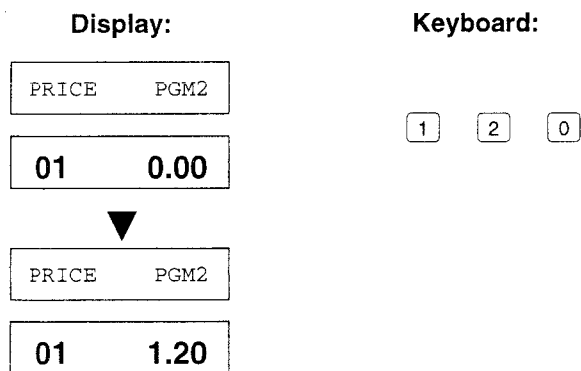
This section describes how to enter numerals using the following example:

**Example** Programming “120” as unit price for the department 1

1. Press **1** (department 1 key).
2. Press **ST** to skip the alphanumeric character programming.
3. The message, the department code and the current unit price appear as follows:



4. Enter the unit price “120” using numeric keys.



5. Press **ST** to complete programming unit price.

6. Select one of the following actions:

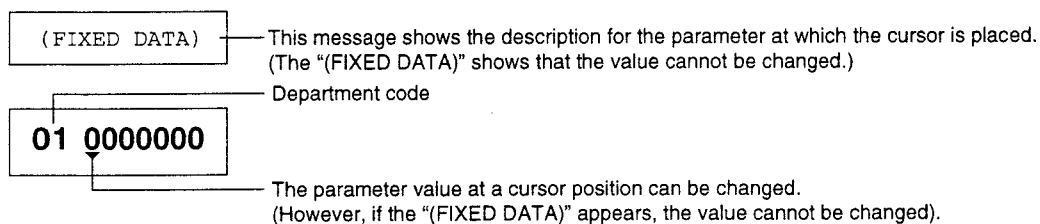
- Continue programming of another item for the department 1 key, following the message on the display.
- Press **TL** to finalize the department programming.
- Press another department key to program the corresponding department.

## **C** Changing Parameters

This section describes how to change parameters for each option, using the following example:

**Example** Programming “taxable 5” for the department 1

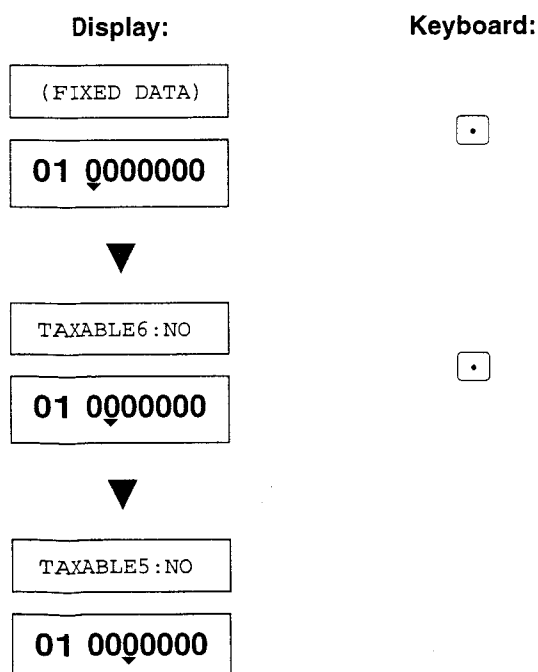
1. Press **1** (department 1 key).
2. Press **ST** to skip the alphanumeric character programming.
3. Press **ST** to skip the unit price programming.
4. The message, the department code and the parameters appear as follows:



5. Move the cursor to go to the target parameter.

To go to the target parameter, move the cursor to the parameter using the following keys:

- ☐: **Moves to the right.** When the cursor is at the rightmost parameter, pressing this key moves it to the leftmost parameter.
- ☒: **Moves to the left.** When the cursor is at the leftmost parameter, pressing this key moves it to the rightmost parameter.

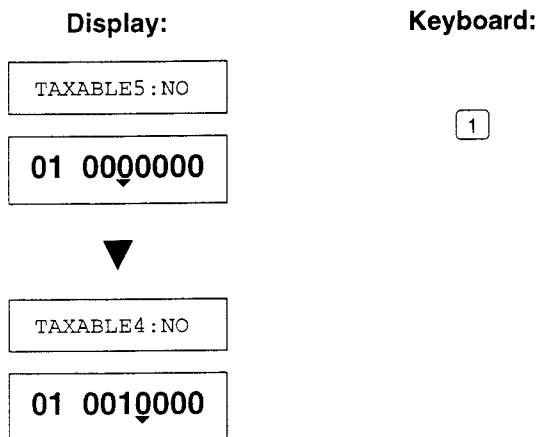


## 6. Enter a value to the parameter.

You can enter a value for a parameter at the cursor position.  
There are following two ways to enter a value:

### ■ Enter a value with a numeric key

Pressing a numeric key changes the value at the cursor position.



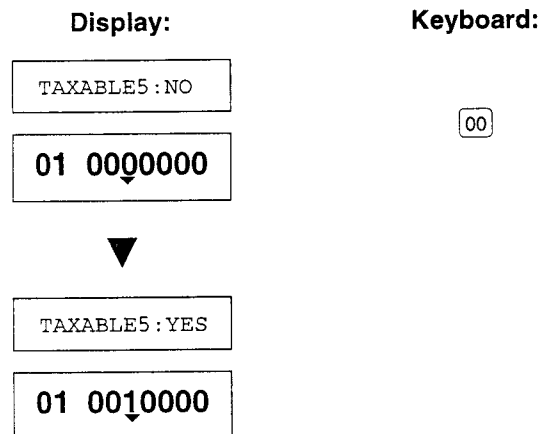
The cursor automatically moves to the right after the number is entered.

### ■ Toggling between values of a parameter

Pressing the 

00

 key toggles between the values of a parameter at the cursor position like the following:  
....→ 0 → 1 → 2 → 0 → 1 → 2...



Move the cursor after the desired value appears.

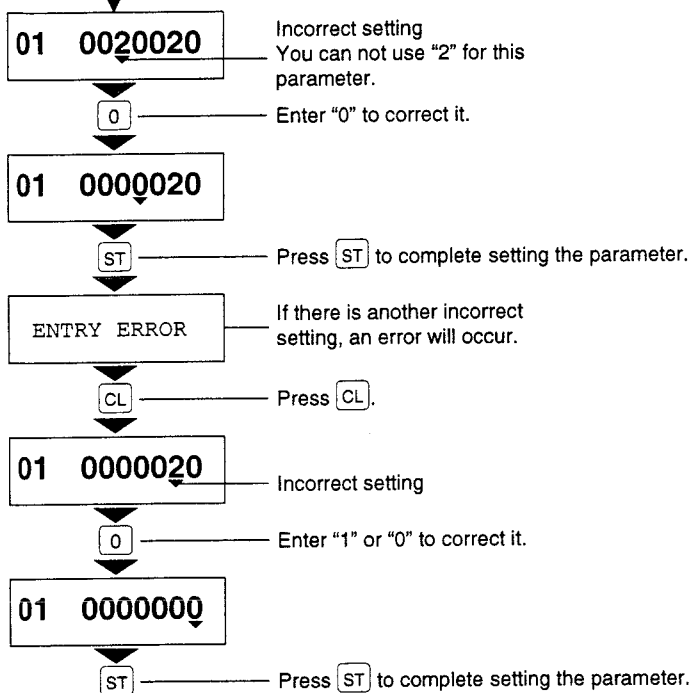
## 7. Press **ST** to complete setting parameters.

### If the "ENTRY ERROR" occurs

Press the **CL** key.

The cursor returns to the position you have to correct like in the example shown below.

#### Example



## 8. Select one of the following actions:

- Continue programming of another item for the department 1 key, following the message on the display.
- Press **TL** to finalize the department programming.
- Press another department key to program the corresponding department.

### 3 Flowcharts for Programming Each Item

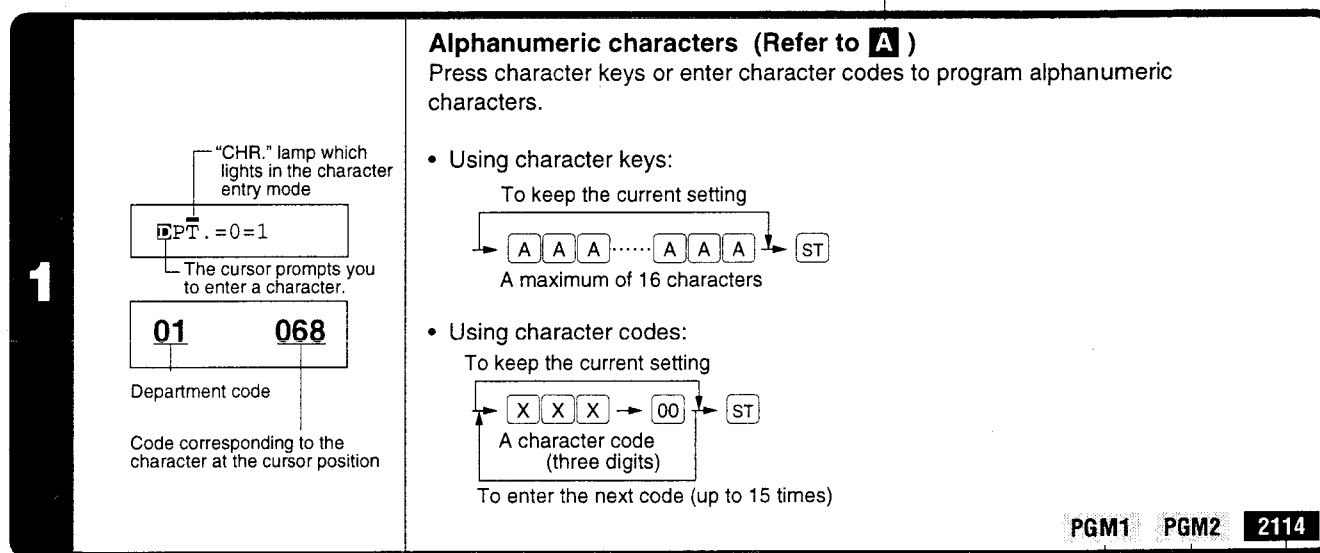
This section shows flowcharts for programming items, options and parameters which you can program for each key.

#### • Icons in each step

The following figure shows an example step:

This icon shows a pattern for programming.

Use a corresponding pattern ( **A** , **B** or **C** ) described in  
 “ ■ Patterns for programming” in section “2 Basic Instruction”.



These icons show that you can do programming of this step in both the “PGM1” and “PGM2” modes.

This icon shows the reference job code for this step.  
 You will find the same abbreviation on the title of the corresponding part of the ER-A490 instruction manual.

## ■ Department

The following items are programmable for a department:

**Alphanumeric characters ( PGM1 PGM2 )**

**Unit price ( PGM1 PGM2 )**

**VAT/TAX ( PGM2 )**

**Functional programming ( PGM2 )**

- Printing on the cashier report Yes/No
- Validation print compulsory/non-compulsory
- SIF/SICS/Normal
- Single/double receipt
- Type of unit price entry

**HALO (High Amount Lockout) ( PGM2 )**

**Commission group number ( PGM2 )**

**Group number ( PGM2 )**

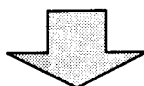
**Print station ( PGM2 )**

# START

**1** through **10** → **00**

Up to 50 optional departments

To go into the character entry mode



**1**

"CHR." lamp which lights in the character entry mode

DPT. = 0 = 1

The cursor prompts you to enter a character.

**01** **068**

Department code

Code corresponding to the character at the cursor position

### Alphanumeric characters (Refer to **A**)

Press character keys or enter character codes to program alphanumeric characters.

#### • Using character keys:

To keep the current setting

A A A ..... A A A → **ST**

A maximum of 16 characters

#### • Using character codes:

To keep the current setting

X X X → **00** → **ST**

A character code (three digits)

To enter the next code (up to 15 times)

PGM1 PGM2 **2114**



To finalize the programming



**2**

**PRICE** **PGM2**

**01** **0.00**

Current unit price

### Unit price (Refer to **B**)

To keep the current setting

X X X X X X → **ST**

A maximum of 6 digits

PGM1 PGM2 **1110**



To finalize the programming





(FIXED DATA)




01 0000000

A B C D E F G

**VAT/TAX (Refer to C )**Select a value for each parameter position (A through G), then press **ST**.

Parameters	Messages	Contents	Values
A	(FIXED DATA)	Always enter 0.	0
B	TAXABLE6:NO	VAT6/TAX6: No	0
	TAXABLE6:YES	VAT6/TAX6: Yes	1
C	TAXABLE5:NO	VAT5/TAX5: No	0
	TAXABLE5:YES	VAT5/TAX5: Yes	1
D	TAXABLE4:NO	VAT4/TAX4: No	0
	TAXABLE4:YES	VAT4/TAX4: Yes	1
E	TAXABLE3:NO	VAT3/TAX3: No	0
	TAXABLE3:YES	VAT3/TAX3: Yes	1
F	TAXABLE2:NO	VAT2/TAX2: No	0
	TAXABLE2:YES	VAT2/TAX2: Yes	1
G	TAXABLE1:NO	VAT1/TAX1: No	0
	TAXABLE1:YES	VAT1/TAX1: Yes	1

Use the following keys for the programming:

- : Moves the cursor to the right parameter.
- : Moves the cursor to the left parameter.
- : Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2111

To finalize  
the programming

TL

4

PRT CSR:NO

00000001

A B C D E F G H

**Functional programming (Refer to C )**Select a value for each parameter position (A through H), then press **[ST]**.

Parameters	Messages	Contents	Values
A	PRT CSR:NO	Printing on the cashier report: No	0
	PRT CSR:YES	Printing on the cashier report: Yes	1
B	(FIXED DATA)	Always enter 0.	0
C	VP COMPL:NO	Item VP non-compulsory	0
	VP COMPL:YES	Item VP compulsory	1
D and E	(FIXED DATA)	Always enter 0.	0
F	NORMAL	Normal	0
	SICS	SICS	1
	SIF	SIF	2
G	SINGLE	Single receipt	0
	DOUBLE	Double receipt	1
H	INHIBITED	Inhibit department entry	0
	OPEN	Open only	1
	PRESET	Preset only	2
	OPEN&PREST	Open and preset	3

Use the following keys for the programming:

- **[ ]**: Moves the cursor to the right parameter.
- **[⊗]**: Moves the cursor to the left parameter.
- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2110

To finalize  
the programming

TL

5

HALO (EXP. )

01

18

Current "HALO"

**HALO (Refer to B )**

You can set upper limit amounts (HALO: High Amount Lockout).

To keep the current setting

→ \*A B → **[ST]**

\*AB is the same as  $A \times 10^B$ 

A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

Example: HALO "16" = 10000.00

PGM2 2112

To finalize  
the programming

TL

6

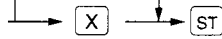
COM. GRP PGM2

01 0

Current commission group number

**Commission group number (Refer to B )**

To keep the current setting



"0": Belonging to no group  
 "1" to "3": Group number "1" to "3"

PGM2 2115

To finalize  
the programming

7

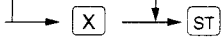
GROUP PGM2

01 01

Current group number

**Group number (Refer to B )**

To keep the current setting



"1" through "9": Dept (+) 1 to 9 group  
 "10": Dept (-)  
 "11": Hash (+) dept.  
 "12": Hash (-) dept.  
 "13": Bottle return (+) dept.  
 "14": Bottle return (-) dept.

PGM2 2116

To finalize  
the programming

8

KP (RS) : NO

01 0001

A B C D

**Print station (Refer to C )**Select a value for each parameter position (A through D), then press **ST**.

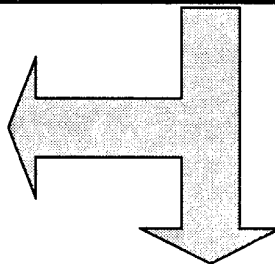
Parameters	Messages	Contents	Values
A	KP(RS): NO	Remote printer output: No	0
	KP(RS): YES	Remote printer output: Yes	1
B and C	(FIXED DATA)	Always enter 0.	0
D	RCP PRNT:NO	Printing on the receipt: No	0
	RCP PRNT:YES	Printing on the receipt: Yes	1

Use the following keys for the programming:

- **[ ]**: Moves the cursor to the right parameter.
- **[X]**: Moves the cursor to the left parameter.
- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2118

To program another  
department key, return  
to the "START"  
position.

**\*PGM2\***

D01 1. 20  
 SOUP 5 G01  
 00000003 KP0001 C1L18

**END**Press the **[TL]** key.

A receipt, which shows information you programmed for the department, will be issued.

## ■ PLU

The following items are programmable for a PLU:

- Alphanumeric characters ( PGM1 PGM2 )
- Unit price ( PGM1 PGM2 )
- Base quantity ( PGM1 PGM2 )
- Pint price ( PGM1 PGM2 )
- Pint quantity ( PGM1 PGM2 )
- Associated department ( PGM2 )
- Sign and VAT/TAX ( PGM2 )
- Mode parameter ( PGM2 )
- Commission group number ( PGM2 )
- PLU group number ( PGM2 )
- Print station ( PGM2 )

# START

- [1] through [64]
  - Up to 112 optional direct PLU keys
  - or
  - PLU code → PLU/SUB
- [00] To go into the character entry mode



### 1

"CHR." lamp which lights in the character entry mode

The cursor prompts you to enter a character.

PLU code

Code corresponding to the character at the cursor position

### Alphanumeric characters (Refer to A)

Press character keys or enter character codes to program alphanumeric characters.

- Using character keys:
 

To keep the current setting

A A A ..... A A A → ST

A maximum of 16 characters
- Using character codes:
 

To keep the current setting

X X X → 00 → ST

A character code (three digits)

To enter the next code (up to 15 times)

PGM1 PGM2 2214



To finalize the programming →

TL

### 2

Current unit price

### Unit price (Refer to B)

To keep the current setting

X X X X X X → ST

A maximum of six digits

PGM1 PGM2 1210



To finalize the programming →

TL

3

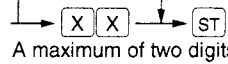
BASE Q'TY

000001 00

Current base q'ty

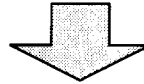
### Base quantity (Refer to **B**)

To keep the current setting



A maximum of two digits

PGM1 PGM2 1211



To finalize the programming



TL

4

PRICE PGM2

000001 0.00

Current pint price

### Pint price (Refer to **B**)

To keep the current setting



A maximum of six digits

PGM1 PGM2 1212



To finalize the programming



TL

5

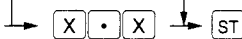
PINT Q'TY

000001 1.0

Current pint q'ty

### Pint quantity (Refer to **B**)

To keep the current setting



0.0 through 9.9

- is needed only for fractional entry.

PGM1 PGM2 1213



To finalize the programming



TL

6

ENTER DEPT#

000001 01

Current associated dept.

### Associated department (Refer to **B**)

To keep the current setting



A maximum of two digits

PGM2 1200



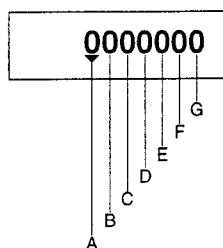
To finalize the programming



TL

7

SIGN (+)

**Sign and VAT/TAX (Refer to C )**Select a value for each parameter position (A through G), then press **[ST]**.

Parameters	Messages	Contents	Values
A	SIGN (+)	+ sign setting	0
	SIGN (-)	- sign setting	1
B	TAXABLE6:NO	VAT6/TAX6: No	0
	TAXABLE6:YES	VAT6/TAX6: Yes	1
C	TAXABLE5:NO	VAT5/TAX5: No	0
	TAXABLE5:YES	VAT5/TAX5: Yes	1
D	TAXABLE4:NO	VAT4/TAX4: No	0
	TAXABLE4:YES	VAT4/TAX4: Yes	1
E	TAXABLE3:NO	VAT3/TAX3: No	0
	TAXABLE3:YES	VAT3/TAX3: Yes	1
F	TAXABLE2:NO	VAT2/TAX2: No	0
	TAXABLE2:YES	VAT2/TAX2: Yes	1
G	TAXABLE1:NO	VAT1/TAX1: No	0
	TAXABLE1:YES	VAT1/TAX1: Yes	1

Use the following keys for the programming:

- **[ ]**: Moves the cursor to the right parameter.
- **[X]**: Moves the cursor to the left parameter.
- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

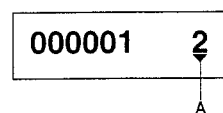
PGM2 2211

To finalize  
the programming

TL

8

PRESET PGM2

**Mode parameter (Refer to C )**Select a value for the parameter position (A), then press **[ST]**.

Parameter	Messages	Contents	Values
A	INHIBITED	Inhibit PLU/subdept.	0
	OPEN	"Subdept." mode	1
	PRESET	"PLU" mode	2
	OPEN & PREST	"PLU/subdept." mode	3
	DELETE	Delete mode	4

Use the following keys for the programming:

- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2210

To finalize  
the programming

TL

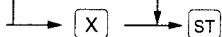
9

COM.GRP PGM2

000001 0  
Current commission group number

Commission group number (Refer to **B**)

To keep the current setting



"0": Belonging to no group  
"1" to "3": Group number "1" to "3"

PGM2 2215



To finalize the programming



10

GROUP PGM2

000001 00  
Current group number

PLU group number (Refer to **B**)

To keep the current setting



"0": Belonging to no group  
"1" to "99": Group number "1" to "99"

PGM2 2216



To finalize the programming



11

KP(RS) : NO

0001  
A B C D

Print station (Refer to **C**)Select a value for each parameter position (A through D), then press **ST**.

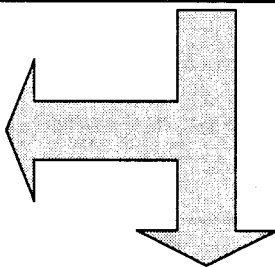
Parameters	Messages	Contents	Values
A	KP(RS): NO	Remote printer output: No	0
	KP(RS): YES	Remote printer output: Yes	1
B and C	(FIXED DATA)	Always enter 0.	0
D	RCP PRNT:NO	Printing on the receipt: No	0
	RCP PRNT:YES	Printing on the receipt: Yes	1

Use the following keys for the programming:

- **[.]**: Moves the cursor to the right parameter.
- **[<]**: Moves the cursor to the left parameter.
- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2218

To program another department key, return to the "START" position.



\*PGM2\*  
P000001 (03) /10  
T 3 1. 00  
2. 0 2. 00  
TEA G03C2  
2 KP0001 S 0.000

END

Press the **TL** key.

A receipt, which shows information you programmed for the PLU, will be issued.

## ■ CA2, CH through CH4, CR1 through CR8 keys

The following items are programmable for the CA2, CH through CH4, CR1 through CR8 keys:

### Alphanumeric characters ( PGM1 PGM2 )

#### HALO ( PGM2 )

#### Functional programming ( PGM2 )

- EFT transaction compulsory/non-compulsory
- Slip printing compulsory/non-compulsory
- Footer printing No/Yes
- Non-add code entry compulsory/non-compulsory
- Change enable/disable
- Validation printing compulsory/non-compulsory
- Opening the drawer Yes/No
- Amount tendered compulsory/non-compulsory/inhibited

## START

CA2, CH through CH4, → 00  
CR1 through CR8 keys To go into the character entry mode



### 1

"CHR." lamp which lights in the character entry mode

CASH2 PGM2

The cursor prompts you to enter a character.

047 067

Function number

Code corresponding to the character at the cursor position

### Alphanumeric characters (Refer to A )

Press character keys or enter character codes to program alphanumeric characters.

- Using character keys:
 

To keep the current setting

```

          A A A ..... A A A → ST
          A maximum of 12 characters
          
```
- Using character codes:
 

To keep the current setting

```

          X X X → 00 → ST
          A character code (three digits)
          
```

To enter the next code (up to 11 times)

PGM1 PGM2 2314

To finalize the programming → TL

### 2

HALO (EXP.)

047 18

Current "HALO"

### HALO (Refer to B )

You can set upper limit amounts (HALO: High Amount Lockout).

To keep the current setting

```

          A B → ST
          
```

\*AB is the same as A x 10<sup>B</sup>  
 A: Significant digit (1 through 9)  
 B: Number of zeros to follow the significant digit (0 through 8)  
 Example: HALO "16" = 10000.00

PGM2 2322

To finalize the programming → TL



EFT NONCMPL

This bar shows that some parameters are continued.

000000000\_

A B C D E F G H I

When the cursor is under the "I" parameter

000000000\_

A B C D E F G H I

This bar shows that there are some previous parameters.

\_000000000\_

C D E F G H I J

\_000000000\_

D E F G H I J K

\_000000000\_

D E F G H I J K L

## Functional programming (Refer to C )

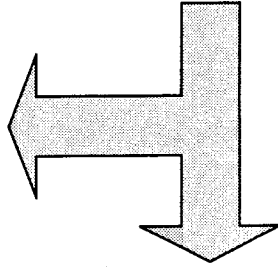
Select a value for each parameter position (A through L), then press **ST**.

Parameters	Messages	Contents	Values
A	EFT NONCMPL	EFT non-compulsory	0
	EFT CMPL	EFT compulsory	1
B	SLIP NONCMPL	Slip printing non-compulsory	0
	SLIP CMPL	Slip printing compulsory	1
C	FOOTER :NO	Footer printing: No	0
	FOOTER :YES	Footer printing: Yes	1
D	#NONCMPL	Non-add code non-compulsory	0
	#CMPL	Non-add code compulsory	1
E	DUE ENABLE	Change enable	0
	DUE DISABLE	Change disable	1
F	VP COMPL:NO	Validation print non-compulsory	0
	VP COMPL:YES	Validation print compulsory	1
G to J	(FIXED DATA)	Always enter 0.	0
K	DRW OPEN:YES	Opening the drawer: Yes	0
	DRW OPEN:NO	Opening the drawer: No	1
L	TND INH.	Inhibit amount tendered	0
	TND CMPL:NO	Non-compulsory amount tendered	0
	TND CMPL:YES	Compulsory amount tendered	1

Use the following keys for the programming:


- **[.]**: Moves the cursor to the right parameter.
- **[←]**: Moves the cursor to the left parameter.
- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

To program another  
key, return to the  
"START" position.



<b>*PGM2*</b>	
<b>F047 CA2</b>	<b>L16</b>
<b>001000000001</b>	

# END

Press the  key.

A receipt, which shows information you programmed for the corresponding  
key, will be issued.

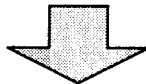
■ **DIFFER ST**, **NS**, **GC COPY**, **∞**, **RF**, **GLU**, **NBAL**, **BT**, **B.S.**, **GC RCPT**, **TIP PAID** **keys**

The following item is programmable for the **DIFFER ST**, **NS**, **GC COPY**, **∞**, **RF**, **GLU**, **NBAL**, **BT**, **B.S.**, **GC RCPT**, **TIP PAID** keys:

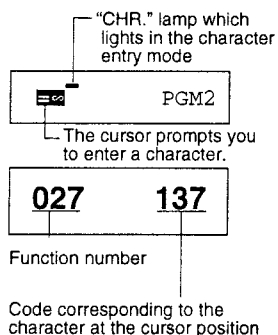
**Alphanumeric characters ( PGM1 PGM2 )**

# START

**DIFFER ST**, **NS**, **GC COPY**, **∞**, **RF**, **GLU**, **NBAL**, **BT**, **B.S.**, **GC RCPT**, **TIP PAID** → **00**  
To go into the character entry mode



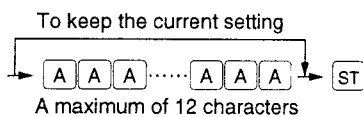
**1**



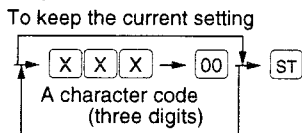
## Alphanumeric characters (Refer to **A**)

Press character keys or enter character codes to program alphanumeric characters.

### • Using character keys:



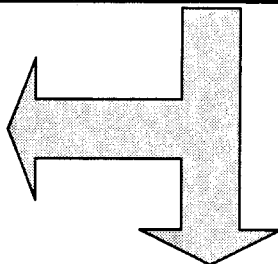
### • Using character codes:



To enter the next code (up to 11 times)

PGM1 PGM2 **2314**

To program another key, return to the "START" position.



**\*PGM2\***  
**F027 VOID**

# END

Press the **TL** key.

A receipt, which shows information you programmed for the corresponding key, will be issued.

## ■ [%1] through [%4] keys

The following items are programmable for the [%1] through [%4] keys:

Alphanumeric characters ( PGM1 PGM2 )

Rate ( PGM1 PGM2 )

Sign +/- ( PGM2 )

Percentage limit ( PGM2 )

Item % / subtotal % / RA discount ( PGM2 )

# START

[%1] through [%4] → 00  
To go into the character entry mode



1

"CHR." lamp which lights in the character entry mode

CHR=1 PGM2

The cursor prompts you to enter a character.

005 037

Function number

Code corresponding to the character at the cursor position

### Alphanumeric characters (Refer to A )

Press character keys or enter character codes to program alphanumeric characters.

#### • Using character keys:

To keep the current setting

A A A ..... A A A → ST  
A maximum of 12 characters

#### • Using character codes:

To keep the current setting

X X X → 00 → ST  
A character code (three digits)

To enter the next code (up to 11 times)

PGM1 PGM2 2314



To finalize the programming



2

RATE PGM2

005 0.00

Current percent rate

### Percent rate (Refer to B )

To keep the current setting

X X X . X X → ST  
0.00 through 100.00

#### • . is needed only for fractional entry.

PGM1 PGM2 1310



To finalize the programming



3

SIGN (-)

005 100000

A B C D E F

**Sign (Refer to C )**Select a value for each parameter position (A through F), then press **ST**.

Parameters	Messages	Contents	Values
A	SIGN (+)	Plus (+) sign setting	0
	SIGN (-)	Minus (-) sign setting	1
B to F	(FIXED DATA)	Always enter 0.	0

Use the following keys for the programming:

- **[ ]**: Moves the cursor to the right parameter.
- **[X]**: Moves the cursor to the left parameter.
- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2311

To finalize  
the programming

TL

4

HALO (RATE)

005 100.00

Current percentage limit

**Percent limit (Refer to B )**Enter a rate as the percentage limit with numeric keys, then press **ST**.

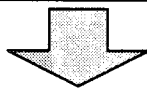
To keep the current setting

X X X . X X ST

0.00 through 100.00

- **[.]** is needed only for fractional entry.

PGM2 2313

To finalize  
the programming

TL

5

ST PGM2

005 0

A

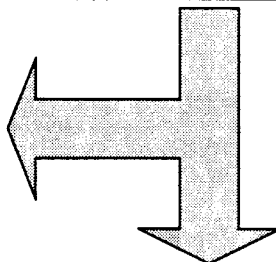
**Item % / subtotal % / RA discount (Refer to C )**Select a value for the parameter position (A), then press **ST**.

Parameter	Messages	Contents	Values
A	ST	Subtotal %	0
	ITEM	Item %	1
	RA	RA discount	2

Use the following keys for the programming:



- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2315

To program another  
percent key, return to  
the "START" position.**\*PGM2\***F005 %1  
I-10.00%  
L 90.00%**END**Press the **TL** key.

A receipt, which shows information you programmed for the percent key, will be issued.

## ■ through keys

The following items are programmable for the  through  keys:

Alphanumeric characters ( PGM1 PGM2 )




Discount amount ( PGM1 PGM2 )

Sign +/- ( PGM2 )

HALO ( PGM2 )

Item (-) / subtotal (-) / RA discount ( PGM2 )

# START

 through  → 

To go into the character entry mode




1

### Alphanumeric characters (Refer to **A**)

Press character keys or enter character codes to program alphanumeric characters.

"CHR." lamp which lights in the character entry mode

 = 1

The cursor prompts you to enter a character.

001 040

Function number

Code corresponding to the character at the cursor position

#### • Using character keys:

To keep the current setting

A A A ..... A A A → ST  
A maximum of 12 characters

#### • Using character codes:

To keep the current setting

X X X → 00 → ST  
A character code (three digits)

To enter the next code (up to 11 times)

PGM1 PGM2 2314



To finalize the programming



2

### Discount amount (Refer to **B**)

RATE PGM2

001 0.00

Current discount amount

To keep the current setting

X X X X X X → ST  
A maximum of six digits

PGM1 PGM2 1310



To finalize the programming



3

SIGN (-)

001 100000

A B C D E F

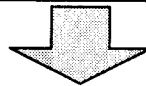
**Sign (Refer to C)**Select a value for each parameter position (A through F), then press **ST**.

Parameters	Messages	Contents	Values
A	SIGN (+)	Plus (+) sign setting	0
	SIGN (-)	Minus (-) sign setting	1
B to F	(FIXED DATA)	Always enter 0.	0

Use the following keys for the programming:

- **□**: Moves the cursor to the right parameter.
- **⊗**: Moves the cursor to the left parameter.
- **00**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2311

To finalize  
the programming

4

HALO (EXP.)

001 18

Current "HALO"

**HALO (Refer to B)**

You can set upper limit amounts (HALO: High Amount Lockout).

To keep the current setting

\*A B → **ST**

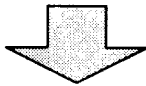
\*AB is the same as  $A \times 10^B$ 

A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

Example: HALO "16" = 10000.00

PGM2 2312

To finalize  
the programming

5

ST PGM2

001 0

A

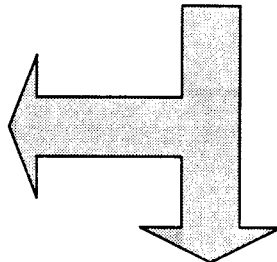
**Subtotal ⊖ / item ⊖ / RA discount (Refer to C)**Select a value for the parameter position (A), then press **ST**.

Parameter	Messages	Contents	Values
A	ST	Subtotal ⊖	0
	ITEM	Item ⊖	1
	RA	RA discount	2

Use the following keys for the programming:

- **00**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2316

To program another  
minus key, return to the  
"START" position.

\*PGM2\*

F001 (-) 1 -10.00

S L13

**END**Press the **TL** key.

A receipt, which shows information you programmed for the minus key, will be issued.

## ■ **EX1** through **EX9** keys

The following items are programmable for the **EX1** through **EX9** keys:

**Alphanumeric characters ( PGM1 PGM2 )**

**Exchange rate ( PGM1 PGM2 )**

**Currency description ( PGM1 PGM2 )**

# START

**EX1** through **EX9** → **00**

To go into the character entry mode



## 1

"CHR." lamp which lights in the character entry mode

**EXCH** PGM2

The cursor prompts you to enter a character.

**060 069**

Function number

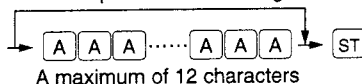
Code corresponding to the character at the cursor position

### Alphanumeric characters (Refer to **A**)

Press character keys or enter character codes to program alphanumeric characters.

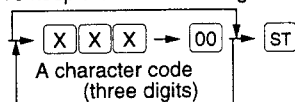
#### • Using character keys:

To keep the current setting



#### • Using character codes:

To keep the current setting



To enter the next code (up to 11 times)

PGM1 PGM2 **2314**



To finalize the programming



## 2

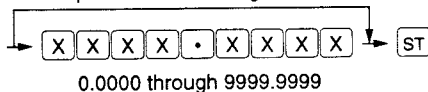
**RATE** PGM2

**060 0.0000**

Current exchange rate

### Exchange rate (Refer to **B**)

To keep the current setting



• **.** is needed only for fractional entry.

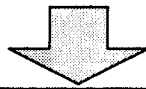
PGM1 PGM2 **1310**



To finalize the programming

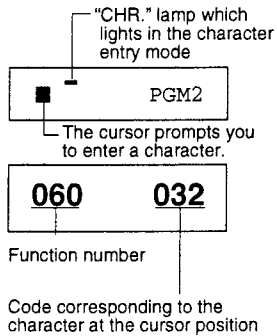






**00** (To go into the character entry mode)

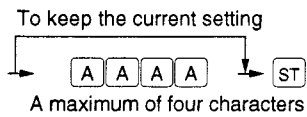
**3**



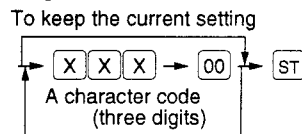
### Currency description (Refer to **A**)

Press character keys or enter character codes to program alphanumeric characters.

- Using character keys:



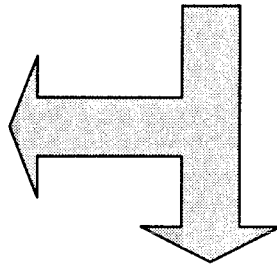
- Using character codes:



To enter the next code (up to three times)

PGM1 PGM2 2324

To program another exchange key, return to the "START" position.



<b>*PGM2*</b>	
F060 EXCH1	US\$ 0.6068

**END**

Press the **TL** key.

A receipt, which shows information you programmed for the exchange key, will be issued.

# RA, RA2, PO, PO2, CASH TIP, NON CASH TIP keys

The following items are programmable for the RA, RA2, PO, PO2, CASH TIP, NON CASH TIP keys:

Alphanumeric characters ( PGM1 PGM2 )  
HALO ( PGM2 )

## START

RA, RA2, PO, PO2, CASH TIP, NON CASH TIP → 00  
To go into the character entry mode



1

### Alphanumeric characters (Refer to A )

Press character keys or enter character codes to program alphanumeric characters.

"CHR." lamp which lights in the character entry mode

\*\*\*RA PGM2

The cursor prompts you to enter a character.

041 042

Function number

Code corresponding to the character at the cursor position

#### • Using character keys:

To keep the current setting

A A A ..... A A A

A maximum of 12 characters

ST

#### • Using character codes:

To keep the current setting

X X X → 00

A character code (three digits)

ST

To enter the next code (up to 11 times)

PGM1 PGM2 2314



To finalize the programming

TL

2

### HALO (Refer to B )

You can set upper limit amounts (HALO: High Amount Lockout).

HALO (EXP. )

041 18

Current "HALO"

To keep the current setting

\*A B → ST

\*AB is the same as A x 10<sup>B</sup>

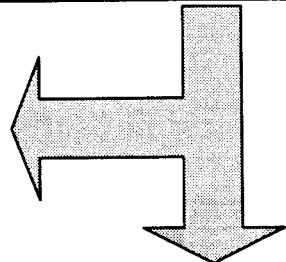
A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

Example: HALO "18" = 1000000.00

PGM2 2312

To program another key, return to the "START" position.



\*PGM2\*

F041 \*\*\*RA

L15

## END

Press the TL key.

A receipt, which shows information you programmed for the corresponding key, will be issued.

## ■ Cashiers

The following items are programmable for cashiers:

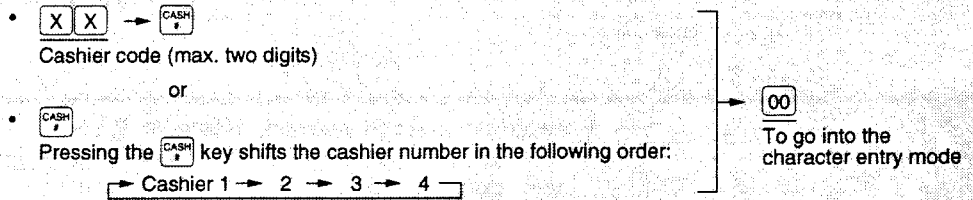
Cashier name ( PGM1 PGM2 )

Cashier code ( PGM1 PGM2 )

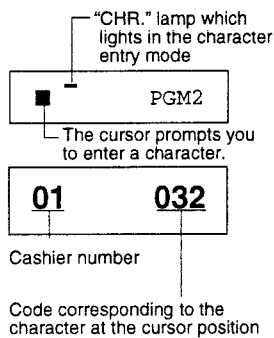
Functional programming ( PGM2 )

- GLU/PBLU compulsory/non-compulsory
- Guest check copy disable/enable
- VAT shift disable/enable
- Drawer number

# START



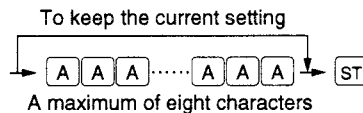
# 1



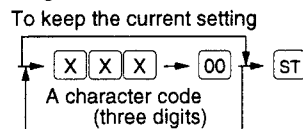
### Cashier name (Refer to **A**)

Press character keys or enter character codes to program alphanumeric characters.

- Using character keys:



- Using character codes:



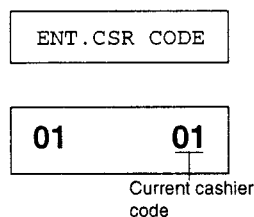
To enter the next code (up to seven times)

PGM1 PGM2 1514

To finalize the programming



# 2



### Cashier code (Refer to **B**)

To keep the current setting



0 through 99

PGM1 PGM2 1500

To finalize the programming



3

(FIXED DATA)

00000000

A B C D E F G H

### Functional programming (Refer to **C**)

Select a value for each parameter position (A through H), then press **ST**.

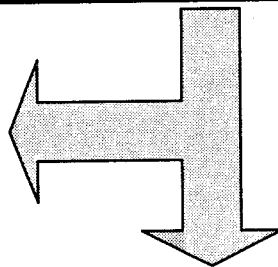
Parameters	Messages	Contents	Values
A and B	(FIXED DATA)	Always enter 0.	0
C	GLU NONCMPL	GLU/PBLU non-compulsory	0
	GLU CMPL	GLU/PBLU compulsory	1
D	G.C COPY YES	Enable guest check copy	0
	G.C COPY NO	Disable guest check copy	1
E	VAT SFT NOT	Disable VAT shift	0
	VAT SFT STAT	Enable VAT shift	1
F and G	(FIXED DATA)	Always enter 0.	0
H	ENT.DRW#	Use no drawer	0
		Drawer number 1 or 2	1 or 2

Use the following keys for the programming:

- **[.]**: Moves the cursor to the right parameter.
- **[⊗]**: Moves the cursor to the left parameter.
- **[00]**: Toggles between parameter values.
- A numeric key: Enters a corresponding value.

PGM2 2510

To program another cashier, return to the "START" position.



\*PGM2\*

01CSR# 1 1  
0001-9999

MIKE  
0000000D1

END

Press the **[TL]** key.

A receipt, which shows information you programmed for the cashier, will be issued.

## ■ **VAT** key

The following items are programmable for the **VAT** key:

**Tax rate ( PGM2 )**

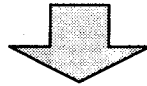
**Lowest taxable amount ( PGM2 )**

# START

**VAT** →

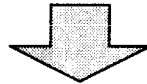
Pressing the **VAT** key shifts the tax rate number to program like this:

→ Taxable 1 → 2 → 3 → 4 → 5 → 6 →



<b>1</b>	ENT. TAX RATE	<b>Tax rate (Refer to B)</b>
	<div>2      0.0000</div> <div>Tax rate number      Current tax rate</div>	<p>To keep the current setting</p> <div> <div>X X . X X X X</div> <div>0.0001 through 99.9999</div> </div> <p>• . is needed only for fractional entry.</p>

PGM2 2711



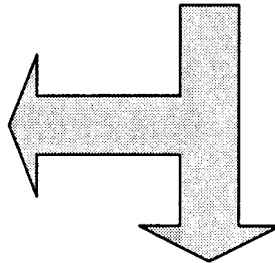
To finalize the programming →

**TL**

<b>2</b>	LOWER TAX	<b>Lowest taxable amount (Refer to B)</b>
	<div>2      0.00</div> <div>Current lowest taxable amount</div>	<p>To keep the current setting</p> <div> <div>X X X X X</div> <div>A maximum of five digits</div> </div>

PGM2 2711

To program another tax rate, return to the "START" position.



<b>*PGM2*</b>	
TAX2	4. 0000% 0. 12

# END

Press the **TL** key.

A receipt, which shows information you programmed for the tax rate, will be issued.

## ■ Time or date

The following items are programmable with the sequence below :

Time ( PGM1 PGM2 **2611** )

Date ( PGM1 PGM2 **2610** )

# START

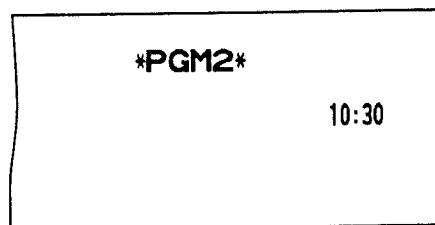
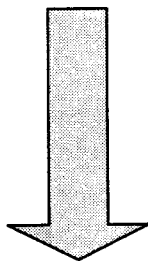
- Time 

X	X	X	X
---	---	---	---

  
Three or four digits
  - Date 

X	X	X	X	X	X
---	---	---	---	---	---

  
Five or six digits
- |   |
|---|
| # |
|---|



# END

A receipt, which shows the time or date you programmed, will be issued.

## Worksheets for programming

Use the tables shown below for programming, referring to the example line (the 1st line). If you need more lines, make copies of the sheet.

For departments

Dept. code	Alphanumeric characters (max. 16 characters)	Unit price (max. 6 digits)	Tax status						Functions				HALO	Commission group (0 - 3)	Group (1 - 14)	Print station							
			Tax6	Tax5	Tax4	Tax3	Tax2	Tax1	Printing on the cashier report	Validation printing	SIF/ SICS/ Normal	Receipt type				Entry type	Printing on remote printer	Printing on the receipt					
1	SOUP	600	0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0	17	1	3	No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1
			0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0				No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset				Yes 1	Yes 1	Yes 1	Yes 1	Yes 1
			0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0				No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset				Yes 1	Yes 1	Yes 1	Yes 1	Yes 1
			0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0				No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset				Yes 1	Yes 1	Yes 1	Yes 1	Yes 1
			0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0				No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset				Yes 1	Yes 1	Yes 1	Yes 1	Yes 1
			0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0				No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset				Yes 1	Yes 1	Yes 1	Yes 1	Yes 1
			0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0				No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset				Yes 1	Yes 1	Yes 1	Yes 1	Yes 1
			0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	No 0	0	0	0	0				No 0	0	0	No 0	No 0
			Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Compulsory 1	SIF 2	Double 1	Open & preset				Yes 1	Yes 1	Yes 1	Yes 1	Yes 1

For PLUs

For PLUs																			
PLU code	Alphanumeric characters (max. 16 characters)	Unit price (max. 6 digits)	Base q'ty (max. 2 digits)	Pint price (max. 6 digits)	Pint q'ty (0.0 to 9.9)	Associated dept. (max. 2 digits)	Sign and tax status							Mode parameter	Commission group (0 - 3)	Group (0-99)	Print station		
							Sign	Tax6	Tax5	Tax4	Tax3	Tax2	Tax1				Printing on remote printer	Printing on the receipt	
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1
							+ 0	No 0	No 0	No 0	No 0	No 0	No 0	Inhibit 0 Subdept. 1 PLU 2 PLU / subdept. 3 Delete 4			No 0	0 0	No 0
							- 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1	Yes 1				Yes 1		Yes 1